

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/NO 03/00283

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16L 19/02, F16L 55/00, B25B 27/16, E21B 17/02  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F16L, E21B, B25B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4012059 A (LUKE ET AL), 15 March 1977 (15.03.77), figure 1, details 24,27,45,47,50,53	1-6
Y	--	7-9
Y	US 3353847 A (C.C. BROWN), 21 November 1967 (21.11.67)	7-9
Y	GB 707988 A (ERIC COOKSON), 28 April 1954 (28.04.54)	7-8
X	US 4153281 A (AHLSTONE), 8 May 1979 (08.05.79), figures 1,6, details 1-4,21,37,39,T	1,6
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Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier application or patent but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\*&\* document member of the same patent family

Date of the actual completion of the international search  22 October 2003	Date of mailing of the international search report  24-10-2003
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer  Malin Hallmén / JA A Telephone No. +46 8 782 25 00

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**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/NO 03/00283

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4093281 A (JANSEN, JR.), 6 June 1978 (06.06.78) -----	1,6

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

06/09/03

International application No.

PCT/NO 03/00283

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 4012059 A	15/03/77	DE FR GB JP MY	2640198 A,C 2323088 A,B 1501577 A 52048835 A 2279 A	17/03/77 01/04/77 15/02/78 19/04/77 31/12/79
US 3353847 A	21/11/67		NONE	
GB 707988 A	28/04/54		NONE	
US 4153281 A	08/05/79		NONE	
US 4093281 A	06/06/78		NONE	

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